

# Instructions

- 1) Print cards on card stock or index paper, using a colored printer.
- 2) Cut each sheet in half lengthwise.
- 3) Cut the cards along the black time period bar at the top. Then cut cards so each measures 2 1/2" in height.
- 4) Finished cards should measure 4 1/4" wide by 2 1/2" inches in height.

8,000 BC to zero BC ▲

To make a product

8,000 BC

Bricks were made of CLAY pressed into a mold and dried in the sun. If these bricks got wet, they would turn back into clay.



8,000 BC to zero BC ▲

To make a product

6,500 BC

CLAY pots were "fired" to make them hard by putting them in a fire. They could be used to store and cook food but they didn't hold liquid and would leak.



8,000 BC to zero BC ▲

To make a product

1,500 BC

GLASS containers were made by dipping a soft clay shape in melted glass. When the glass cooled & hardened, the clay was dug out. They held oils for cosmetics.



photo: Sasson Ancient Art

8,000 BC to zero BC ▲

To light

1,000 BC

The first "candles" were wicks stuck in a container filled with a flammable liquid such as oil.



photo: coinart.net

8,000 BC to zero BC ▲

To heat

300 BC

Romans invented the first central heating system — called a "hypocaust." Wood was burned in a furnace. The hot air from the furnace passed through spaces under the floor and hollow tiles in the walls to heat a room.

8,000 BC to zero BC ▲

To heat

1100 BC

Records show that coal was used as a fuel.



8,000 BC to zero BC ▲

To signal

290 BC

The ruler Ptolemy built the first lighthouse in the world to guide ships into the harbor. The lighthouse used a large fire for light. (Egypt)



8,000 BC to zero BC ▲

To make a product

2500 BC

A portable heater was made of METAL and filled with hot embers or coal and carried from room to room for heat. (Greece)



photo courtesy VRoma project

8,000 BC to zero BC ▲

To make a product

100 BC

"Glaze" is a material that looks like cream. When a fired CLAY pot is dipped in glaze and put in the fire again the glaze becomes hard and shiny like glass. Glazed pots hold liquids without leaking.



1 AD to 1500 AD ■

To power

62 AD

Heron studied using steam from boiling water to make inventions run. He invented the first steam "engine" and called it a "wind ball." Heron used steam to power machines to amuse his friends.



1 AD to 1500 AD ■



To heat

1500(s) AD

People in Holland, France and England built glass green-houses. Energy from the sun made it possible to grow fruits, vegetables and other plants all year.



8,000 BC to zero BC ▲

To make a product

50 BC

GLASS blowing was discovered. Glass was heated in a special furnace until it melted and could be blown like a bubble. This was a way to produce many glass bottles.



photo:  
The Edge Art Gallery,  
South Beach, Oregon

1 AD to 1500 AD ■



To heat

1200 AD

Some Native Americans in North America lived in cliff dwellings that faced south. The sun was used to heat their homes.



1 AD to 1500 AD ■

To heat

700(s) AD

People in China used stoves to heat their homes.

1 AD to 1500 AD ■

To cook

1490 AD

Wood-burning stoves were used for cooking for the first time. (France)



1 AD to 1500 AD ■

To make a product

1380 AD

METAL was made into metal alphabet letters that were used to print books.(Korea)



Gutenberg invented moveable type and a printing press in 1439 AD. (Germany)

1 AD to 1500 AD

To heat

1400(s) AD

Wood-burning stoves were used for heating in Europe.

1500 AD to 1850 AD

Fire-making technology

1827 AD

The first matches were invented, but they were unsafe to use. The flame was unsteady and they lit with a bang.

1500 AD to 1850 AD

To heat

1744 AD

Benjamin Franklin invented the Franklin Stove to replace the fireplace for heat. Smoke came out the bottom and it didn't stay lit for very long. Later, someone added a chimney pipe to remove smoke from the room.



1500 AD to 1850 AD

To cook

1767 AD

Horace Benedict de Saussure built the first known solar oven. It used the heat of the sun to cook food. It didn't need fuel such as wood.



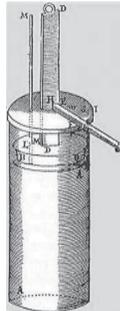
1500 AD to 1850 AD

To power

1687 AD

Piston-driven steam engine was invented by Denis Papin, but he never built one.

(France/England)



1500 AD to 1850 AD

To make a product

1800(s) AD

"Coke," a new fuel, burned very hot. Steel, a new metal, was made in furnaces heated with coke. Steel is stronger than iron.

(Coke is what is left after coal is burned. Steel is made of iron combined with carbon.)

1500 AD to 1850 AD

To light

1783 AD

A man named Argand invented an oil lamp with a wick and glass cover to protect the flame from air movement and flickering.

(Swiss)

1500 AD to 1850 AD

Fire-making technology

1844 AD

Safety matches were invented. They had to be struck against a special striking patch. They didn't light with a bang like the first matches.

1500 AD to 1850 AD

To heat

1800(s) AD

A large boiler to heat water for heating a whole house was invented. The hot water was carried by hidden pipes to the upper floors of the house. (Europe)

1500 AD to 1850 AD

To power

1783 AD

Two people in a hot air balloon flew about 6 miles in 25 minutes. Heat from straw burning in a basket below the balloon made it fly. A basket below the burning straw held the people. (France)



1850 to 21st Century

To cook

1850(s) AD

Cooking began to be done in an oven instead of an open fireplace.

The oven was made by raising the fireplace and walling it in.



1850 to 21st Century

To heat

1891 AD

Clarence Kemp patented the first commercial solar water heater. The sun was used to heat water. (United States)

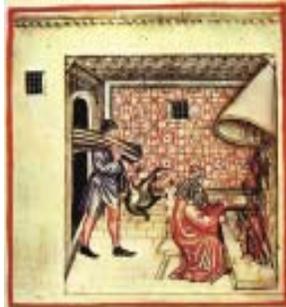


1 AD to 1500 AD

To heat

500(s) AD

Houses were heated by fire in a fireplace. Smoke went up a chimney.



1 AD to 1500 AD

To heat

529 AD

The Roman Emperor Justinian made "sun rights" a law so that every building had access to the sun to warm it. People were not allowed to build if their house shaded their neighbor's house.



1 AD to 1500 AD

To heat

100 AD

Pliny the Younger, an Italian historian, built the first solar home to use glass in the window openings to keep heat from the sun in and cold out.

1500 AD to 1850 AD

To light

1800(s) AD

Lamps that burned kerosene or gas began to be used. They gave more light than candles of beeswax or animal fat (tallow).



8,000 BC to zero BC ▲

Fire-making technology



600 BC

A special stone, rock crystal, was used to focus the sun's rays to make a campfire.



1850 to 21st Century ★

Technology



1870(s) AD

Augustin Mouchot used heat from the sun to run cookers, water pumps for irrigation, and distillers for wine and water. (France)

1850 to 21st Century ★

Technology



1950(s) AD

Solar cells in space using light from the sun were used in the United States for satellites.



1850 to 21st Century ★

To heat



1860(s) AD

Pioneers in the United States discovered that water in black pans gets hot in the sunlight.

1850 to 21st Century ★

Fire-making technology



1903 AD

Dr. Carl von Welsbach invented a lighter flint made of special metals. When struck, it produced a spark that could start a fire.

1850 to 21st Century ★

Technology



1954 AD

Solar cells, known as photovoltaics, were invented. Photovoltaics use light from the sun to produce electricity.



photo U.S. Dept. of Energy

1850 to 21st Century ★

Technology



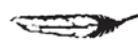
1984-1991 AD

Nine power plants using the sun to create electricity were built in California. They closed in 1991 when gas prices were low.

In 2002, gas prices were high and more solar power plants were built.

Ancient to 30,000 BC ▽

To manage environment



30,000 BC

Native Americans used fire to clear a fireproof area around camps and plants they used for medicine.

1850 to 21st Century



Technology

1977 AD

President Jimmy Carter installed solar panels on the White House roof to use the sun to heat water. He encouraged people to use solar energy. The solar panels were removed from the White House in 1980. (United States)

1850 to 21st Century



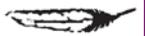
To manage environment

1948 AD

Grass farmers in Oregon began burning their fields to clean them.



Ancient to 30,000 BC

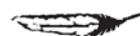


To manage environment

30,000 BC

Native Americans used fire to drive animals they were hunting into places where they could be killed easily.

Ancient to 30,000 BC



To manage environment

30,000 BC

Native Americans used fire to manage pests such as black flies, mosquitos, rodents and poisonous snakes.

Ancient to 30,000 BC



To manage environment

30,000 BC

Native Americans used fire to clear ground for growing food and to increase the yield of berries.

Ancient to 30,000 BC



To light

Ancient times

People burned melted animal fat in a hollowed-out stone to create the first lamp.



NPS photo

Ancient to 30,000 BC



To heat

500,000 BC

People used a campfire to keep warm.

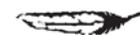


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Ancient to 30,000 BC



To signal



30,000 BC

Native Americans used smoke from fire to alert tribes about enemies or to gather people to fight enemies.

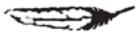
Ancient to 30,000 BC

Fire-making technology

Ancient times

People discovered they could make fire by rubbing two sticks together or by striking two stones together.

Ancient to 30,000 BC



To manage environment

30,000 BC

Native Americans used fire to clear weeds near streams so grass and trees would grow instead. The grass and trees were food for birds and animals that the Native Americans used for food and fur.

Ancient to 30,000 BC

To cook

65,000 BC

The first "stove" was a fire built on flat stones. People cooked food on the hot stones. People boiled water by taking hot stones from the fire with a stick and dropping the stones in water.

Ancient to 30,000 BC

To cook

500,000 BC

People used a campfire to cook their food.